# **EVA**

# **Import & Export**

**Interface Design Guide** 

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**Version 2.0** 

# **eVA Import & Export Interface Guide**

PART I	GENERAL INFORMATION	1
Purpe	ose	1
•	to use this Guide	
Visua	l Cues	1
Ackno	owledgements	1
Defin	itions	2
Back	ground	3
Desig	gn Assumptions and Constraints	3
	ral Architecture for Import and Export	
The F	Procurement Process	6
Evalı	uating Your Alternatives	7
PART II	DATA ADMINISTRATION	9
Expo	rting COVA Entity Data from eVa	9
	Vendor Information	
$\Diamond$	Order Information	11
$\Diamond$	Receiving Information	13
	rting COVA Entity Data into eVA	
_	Vendor Information:	
	Mandatory Order Information	
	Review Decisions to Reduce Complexity	
	view of Potential Errors and How They will be Handled	
	way Communication between your system and eva (Integration-Future)	
PART III	IMPLEMENTING	30
Expo	rting COVA Entity Data from eVA	30
	port Options	
	ta Format	
	equency	
	ansport Options	
Or	der Export Implementation Checklist	31
Impo	rting COVA Entity Data into eVA	33
Im	port Options	33
	ders & Requisitions	
	ange Orders (to Orders Imported into eVA)	
	ta Format	
	equency	
	ansport Options	
Im	port Decision Tree	38

# Version 2

Testing	43
Order Import Implementation Checklist	
PART IV APPENDIX	46
Security Access Forms	46
eVA Import/Export Record Specification	48
Fit-Gap Issues and Resolutions - Order Import Workgroup	48
Workgroup Participants & Meeting Minutes	48

# Part I General Information

# **Purpose**

The purpose of this guide is to provide guidelines and required formats for the exchange of purchasing information between COVA Entities and eVA.

### How to use this Guide

The guide is organized into four subject areas. Part I - General Information is intended for all guide users. Part II - Data Administration, identifies key issues and decisions each COVA Entity must make. The section is divided into three discussion areas: Export, Import, and Integration. Each discussion area provides all required information. COVA Entity managers should review this section before making design decisions about the COVA Entity's interface process. Part III – Implementation is intended to provide technical information on interface file specifications, error handling, and transport information. Part - IV Appendix contains appendices referenced in the guide, the work group's minutes and other interim work products.

### **Visual Cues**

Decision Point

Contact Information

OR Make a choice between two or more options

AND Must also do this task

(FIELDNAME) The label used in the detail import/export specification

# Acknowledgements

The Department of General Services and the Division of Purchases and Supply would like to thank all of the COVA Entity participants on the interface design workgroup. The work was challenging, time consuming, and at times frustrating, but all participants attended regularly and provided substantive contributions to the final product. The agencies and universities that participated in this design effort are:

Auditor of Public Accounts	Mental Health, Mental	Technical Planning
Conservation and Recreation	Retardation & Substance	Transportation
Corrections	Abuse Services	Virginia Commonwealth
Environmental Quality	Mines Minerals and	University
General Services	Energy	Virginia Correctional
Health	Motor Vehicles	Enterprises
Information Technology	Old Dominion University	Virginia Tech
Labor and Industry	Social Services	Medical Assistance Services

### **Definitions**

**COVA Entity:** Any Virginia agency, university, institution, or local

government

**DUNs Number:** The Dun and Bradstreet number is a number assigned by the

Dun and Bradstreet Corporation to identify three key hierarchies of a business entity. The Global DUNs Number identifies the world head quarters for the business entity. The Domestic DUNs Number identifies the US headquarters, and the Branch DUNs Number identifies separate physical locations of the business. Once assigned, a DUNs number is never reused to represent another business entity or a

different location for the entity.

**Export:** Extracting data from eVA for use by COVA entity systems

**Import:** Extracting data from COVA entity systems and loading the

extracted data into eVA

**Local System:** A local system is any system used by the agency, institution,

university or local government for the processing of purchase and financial transactions. Commonly referred to as ERP

(enterprise resource planning) systems.

**Portal:** eVA functionality that presents document and report content

to COVA Entity users. Accessed by selecting the Reports &

Documents link.

# Background

An e-procurement design team that included executive branch agencies, universities, and local governments developed the concepts for eVA, the Commonwealth's electronic procurement solution. The design team had both technical and program specialists. Agencies with varied financial and procurement systems, commonly known as enterprise resource planning systems (ERPs) were represented. eVA's scope was defined by this "design" team and approved by the eGov Office of DTP and by the Secretary of Technology. Executive Order 00-65 provided final direction for the implementation of eVA.

The guidelines and detailed specifications contained in this guide are based on work conducted by the eVA Interface Workgroup. The workgroup has 19 representative agencies and universities and is charged with designing the generic interface formats required by agencies and universities to exchange purchasing information between eVA and their local system applications. The eVA contract identifies 19 import or export generic interfaces. The interface workgroup has concentrated on the most critical interfaces for data exchange between the COVA Entity systems and eVA. Although eVA plans to support a variety of data exchanges, most COVA Entity local systems only maintain information about vendors and orders. COVA Entities have not automated catalog submission from vendors, electronic invoice submission, solicitations, or vendor performance data.

The work of the Interface Workgroup will not end with the import/export requisition specifications that are defined in this guide. As new functions are implemented in eVA, the workgroup will be involved in defining and designing how data exchange between COVA Entities and eVA will occur. This document will be revised to include these generic interface specifications.

The workgroup focused on three key issues: data administration, data transmission, and error handling. Because Virginia has never required central reporting for COVA Entity purchases, considerable work was required in data administration. The workgroup needed to agree on a common way to identify vendors and vendor ordering locations, to define a common way to describe what COVA Entities purchase, and to define common identifiers for government users, shipping and billing locations. The workgroup also realizes that decisions made within each of our organizations to facilitate internal processes must be compatible with vendor's capabilities to electronically process their orders.

Although the work was time consuming and the final guidelines require some adjustments for both eVA and COVA Entity local systems, it is work that will allow a complete automation of the supply chain. It will reduce administrative costs to both COVA Entities and suppliers. With or without eVA, this work provides a framework for capture at the statewide level what the Commonwealth purchases, from whom, and at what price.

# **Design Assumptions and Constraints**

eVa is a service offered by American Management Systems (AMS). Because it is a service offering, the software is not owned or controlled by the Commonwealth. All decisions made by the design team must conform to AMS' service offering practices.

eVA is an integrated set of commercial software packages. Solutions that are not feasible within the application offering must be excluded from final consideration.

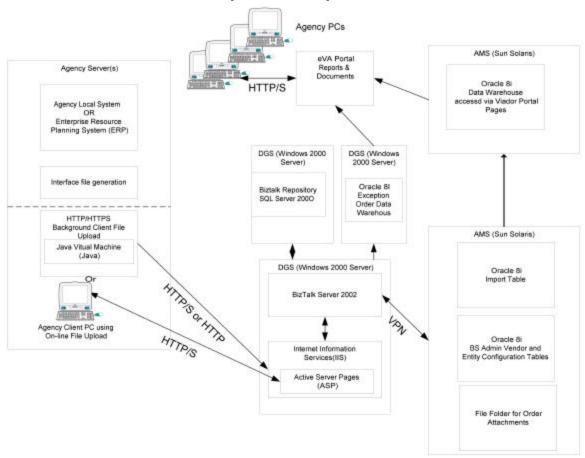
Vendors and Buyers are both customers of eVA. Decisions on how we interface must consider the technical abilities and limitations of all eVA customers.

The design must be flexible and tolerant of technical differences and limitations among eVA customers.

The design must allow for limiting the impact of future changes including changing service providers, increased functionality or software tools.

The team is charged with developing one generic interface specification to be used by all COVA Entities.

# **General Architecture for Import and Export**



**Figure 1 General Interface Architecture** 

The Commonwealth has a diverse technical and applications architecture. COVA Entities have made their own architecture decisions. The technical architecture for eVA

interfaces is an open architecture that provides sufficient flexibility to ensure all COVA Entities can participate.

COVA Entities planning to import files to eVA are required to produce a delimited text file and transport the file to the DGS interface servers. Transport requires a PC with an Internet browser with 128 bit encryption and Internet access. The COVA Entity may choose to use a DGS developed JAVA applet that will transmit a file via HTTPS 128 bit encryption to the DGS interface servers. This applet requires that a Java virtual machine be installed on the server. This applet is command line driven so it can be executed by COVA Entity scheduling software. The server would also be required to have outbound access to the Internet.

For COVA Entities planning to export files from eVA, only a PC with an Internet browser and Internet connection is required. All export files are delimited text files that can be imported into COVA Entity local systems or manipulated with standard office spreadsheet or database software.

DGS is the interface consolidation point for all import file transfers to the eVa e-mall. DGS has provided Biztalk Message Broker 2002 software for the free use of all eVA import users. The message broker provided the workgroup with better data administration and error handling options. The broker is designed to translate and validate ordering data coming from COVA Entities. The broker is also responsible for converting COVA Entity flat files into XML messages for submission to the eVA e-mall.

In support of import and export interfaces, AMS is providing access to eVA vendor and buyer information for import order validation, programming to import the orders into eVA e-mall, the data warehouse, and reporting tools to be used for exporting data from eVA. Initial access to eVA order and receiving data will be by downloading files from the eVA portal. In the future, DGS will evaluate the capacity of the message broker for the automated distribution of export files to agencies.

# Ordering Requisitioning Receiving Sourcina Determine Vendor delivers Identify need Procurement Select Vendor Non Competive or Existing Contract good or service Competitive Method Prepare Purchase Determine Prepare Document Receipt Document Source Requirments Solicitation Order of Good or Servjæé Identify Potential Determine Vendor Deliver to Approve Order Sources Pool Requestor Distribute Distribute Order Create Requisition Solicitation Receive Solicitation Responseş Evaluate Responses Legend: Supported in Eva Award to Vendor,

### **The Procurement Process**

**Figure 2 The Procurement Process** 

eVA is designed to support all aspects of the procurement process from requisitioning through receiving. COVA entities may receive (export) all ordering, receiving, and vendor registration information entered into eVA and may send to (import) local system

generated purchase orders for electronic distribution by eVA and storage in the eVA purchasing data warehouse

# **Evaluating Your Alternatives**

eVA supports importing COVA Entity purchase order information into eVA and exporting eVA orders and receiving for use in COVA Entity systems (local systems). Some COVA Entities may require both import and export interfaces. For example an organization may want to import purchase orders from their local system and export purchase card orders entered directly in eVA into their local system.

The first decision for a COVA Entity is to determine what components of the eVA solution the COVA Entity will use. The procurement process diagram on page 6, outlines the steps required to purchase goods and services. eVA is designed to electronically support all of these steps. COVA Entities may elect to use some or all of eVA either directly by using the eVA application or indirectly through the eVA generic interface.

In March 2001, eVA implemented solicitation distribution to eVa vendors and electronic receipt of vendor catalogs. In August 2002, eVA began accepting COVA Entity purchase orders and electronically distributing COVA Entity orders to eVA vendors. eVa also supports the export of COVA Entity purchase orders, purchase card orders, receiving, contract vendor catalogs, vendor registration, and COVA Entity eVA setup information.

The program managers for purchasing, finance and technology should review the interface alternatives and make implementation recommendations for their COVA Entity by determining what eVA functionality the COVA Entity needs to use and what impact their decisions have on existing local systems.

Key issues that should be considered in making this recommendation are:

Support the Commonwealth's objective to provide vendors a common electronic way to do business with the Commonwealth.

Compliance with Division of Purchases and Supply Policies

Need for pre-encumbrance and encumbrance accounting

Functionality provided in eVA as compared to local system

Technical effort and capability of staff to support selected alternative

Scope and penetration of the local system throughout the COVA Entity (Buyers only, requisitioners, all employees)

Existing workflow in local systems or need for eVA workflow

Complexity of integration between multiple local systems

Once the decision to import from local systems into eVA or export from eVA into local systems has been made, the COVA Entity needs to review the data administration alternatives to determine their specific approach.

# **Part II Data Administration**

Data administration is the management of information between two systems to ensure correct information is exchanged. Data administration is maintaining shared common identifiers for critical information entities like vendors, users, agencies, and commodities and the definition of the processes required to ensure the information is accurate and timely.

# **Exporting COVA Entity Data from eVa**

The term export is used to mean any information entered into eVA that is available to COVA Entities for download and use in COVA Entity local systems. COVA Entity Order and Receiving information entered into eVA is available for download from the eVA Portal. Many reports for vendor data and COVA Entity configuration data are already available. The export interface workgroup focused on designing delimited text files for ordering and receiving data. In preparing to use these files within the COVA Entity, the following information categories should be reviewed to determine if the COVA Entity should change the local system.

### Vendor Information

All vendors that have registered on eVA and their addresses are available for download from the eVA Portal. Vendor information is contained in two files, the vendor header file and the vendor location file. The vendor header file provides the following vendor identifiers: eVA internal supplier identifier, federal tax identifier, vendor's legal name, and DUNS number. The vendor in submitting their electronic catalogs uses the vendor header (catalog) DUNs number.

The vendor location file provides specific information about a vendor's branch location including ordering, solicitation, and remit addresses, contact information, and the branch location's ordering DUNs number. The branch location DUNs number is used to electronically send vendor orders to the correct branch location.

Vendor header and location information will also be contained in the order export file. The same identifiers eVA Internal Id, Federal Tax ID, Vendor (catalog) DUNs, and Vendor Location DUNS.

Most local systems use a sequential number to identify vendor information and use the Federal Tax Identifier and/or Vendor Legal Name as an alternate identifier. Many local systems allow multiple vendor records for the same Federal Tax Identifier. This particularly happens with franchise businesses. For purchasing transactions, these locations act as independent vendors, but for tax purposes they are viewed as one business unit. Because many systems allow multiple vendor records to use the same Federal Tax Identifier, using Federal Tax Id may not be a good candidate for sharing vendor branch information from eVA into the local system.

For COVA Entities planning on loading purchase order transactions into local systems, the COVA Entity needs to evaluate how vendor branch information from the order will be related to the local systems vendor file.

## **Step 1 Matching eVA Vendors to Local System Vendors:**

**DUNS Number:** The Dun and Bradstreet number is assigned by the Dun and Bradstreet Corporation to identify three key hierarchies of a business entity. The Global DUNs Number identifies the world headquarters for the business entity. The Domestic DUNs Number identifies the US headquarters. The Branch DUNs number identifies a business entities' physical location. In the January 2003 release of eVA, each vendor is identified by a catalog duns number. This number represents the duns number the vendor has choosen to use to submit catalogs. This catalog duns number could also be used as a branch location duns number. The Branch DUNs Number will continue to be used in eVA to identify separate branch ordering locations.

COVA Entities should consider if their local systems need to maintain the DUNs number to identify general vendor (vendor header) information. By including this number in the local system's vendor header information the COVA Entity could automate receiving and update of vendor information from the eVA central vendor registration database.

OR

**Federal Tax ID**: In the January 2003 release, eVA now requires a unique Federal Tax ID as part of the vendor registration process. The federal tax id is a unique logical key to the vendor header record. eVA does not require Federal Tax ID to be unique at the vendor location level; allowing the wendor location to use the same federal tax id number or a different federal tax id number. Therefore the COVA Entity should expect multiple vendor branch location records with the same Federal Tax ID. Local systems may choose to use federal tax id identifier to match eVA orders to local systems vendor files, but should establish rules on how duplicate ordering locations with the same federal tax id will be handled. It is recommended that COVA Entities use the branch duns number to distinguish multiple vendor ordering locations.

### Step 2 Prepare for unique vendor location identifier

**DUNS Number:** The Branch DUNs Number identifies separate physical locations of the business. eVA will provide the Branch DUNS number for every ordering location assigned to the vendor. The service used to deliver electronic orders to the vendor uses this number as a unique identifier for the electronic ordering location for the vendor.

COVA Entities should consider if their local systems need to maintain the branch DUNs number to identify eVA vendor ordering locations. By including this number in the local system's vendor location record the COVA Entity could automate receiving and update of vendor location information from the eVA central vendor registration database.

OR

**Federal Tax ID plus 5-digit postal code**: eVA requires a Federal Tax ID and ordering location postal codes as part of the vendor registration process. eVA does not require Federal Tax ID plus 5-digit postal code to be unique across all ordering locations, therefore the COVA Entity should expect duplicate records if they choose this identifier to match vendor locations. Local systems may choose to use this identifier to match eVA orders to local systems vendor addresses, but will need to set rules for how duplicate values are handled.

### Order Information

The order export file contains key reference information that may require COVA Entity translation prior to use in the local system. This section identifies key translations that the COVA Entity may be required to make prior to loading data into the local system. A complete list of all export fields and definitions are contained in the Appendix: Import/Export Specification

### **Step 4 Manage Purchase Order Numbers**

The COVA Entity will need to determine if the eVA purchase order number will be used or if the local system will automatically assign the number. eVA purchase order numbers are unique. The number is used to associate purchase order lines, accounting distribution, and receiving. In all cases the COVA Entity needs to maintain this number within their local system to relate associated purchase order information.

### Step 5 Assess which export fields require cross references/translation tables

**eVA Order Preparer** (*REQPREPARERID*): Every export order will contain a valid eVA Login ID in the eVA Order Preparer field. This information is sent to the vendor as contact information about the order. Based on local system requirements, this field may need to be related to a similar field in the local system. Some strategies for maintaining this information in the local system include: establish local system Login Ids to match eVA Login Ids. Associate the eVA system Login Id as part of the local system user profile information. Establish a cross reference table available to the local system's import order file program to do the substitution.

eVA user information is available for export on the eVA Portal. It is the responsibility of the COVA Entity to monitor changes to this information

AND

**Purchase Order Category** (*POCATEGORY*): This eVA required field is a means of categorizing purchase orders by procurement method. Many COVA Entity local systems maintain this information as part of the purchase order. The code values eVA uses are listed in Table 1 PO Category ValuesTable 1 PO Category Values.

Code Value	Code Description
R01	Routine
E01	Emergency
P01	Proprietary
S01	Sole Source

**Table 1 PO Category Values** 

Note: Although a final design decision has not been made, the purchase order category values may be expanded to account for exemption processes such has exempt orders that are processed through eVA.

AND

Commodity Identifier: Some COVA Entities may be using a commodity identifier to group similar goods and services. This is commonly known as the "item master". For the purpose of classifying commodities in the data warehouse, COVA has standardized on NIGP version 11 at the five-digit level. A cross reference table between NIGP Version 11 (5-digit level) and UNSPSC Version 4.03 (8-digit level) is being developed, but is not complete at this time (April 2002). When it is complete, COVA Entities will have access for translation purposes to this cross-reference. If COVA Entities are using other commodity classification systems, they will need to develop a cross-reference table.

NIGP Version 11 5 Digits level: COVA Entities may choose to use NIGP Version 11 commodity codes. The NIGP codes are used for eVA registration of vendors. For COVA Entities using eVA functions of Quick Quote, Virginia Business Opportunities, and/or eVA Vendor's Bidders List, this code set may be the best choice. Many COVA buyers are familiar with these codes and would adapt by entering the code to describe items. NIGP codes must be licensed.

Licensing details and pricing options are available from the NIGP website <a href="http://www.nigp.com/nigp-order-5digit-02.jsp">http://www.nigp.com/nigp-order-5digit-02.jsp</a>. It is the COVA Entity's responsibility to appropriately license the code.

### AND

### **United Nations Unit of Measure Codes**

**United Nations Unit of Measure:** eVA uses the United Nations Unit of Measure codes. Entities that use a different code set and require valid unit of measures should adopt the United Nation code set or develop a cross reference table.

Unit of Measure information is available for export on the eVA Portal. It is the responsibility of the COVA Entity to monitor changes to this information.

### AND

### **Manage COVA Entity Shipping and Billing Locations**

**eVA Shipping** (*SHIPTOID*) & Billing (*BILLTOID*) Identifiers Every eVA shipping and billing address has been assigned an eVA location identifier. The eVA identifier and full address information is available with each export order. If local systems require ERP address values to load purchase orders, there is an address record field associated with Shipping (*ERPSHIPTOID*) and Billing (*ERPBILLTOID*) addresses that could be used as a cross reference field. The local system address identifiers would need to be loaded into the eVA address record to make this identifier available to the local system.

## **Step 6 Review Chart of Accounts**

If the local system requires account distribution data, the COVA Entity should review the accounting data that has been loaded into eVA for completeness and accuracy. eVA provides self maintenance of accounting and address information.



Contact Maria Monteiro Hatcher <a href="mhatcher@dgs.state.va.us">mhatcher@dgs.state.va.us</a> to coordinate your COVA Entities' access to data maintenance.

# **Receiving Information**

eVa can be used to receive orders. If COVA Entities are using eVA receiving, receiving data is available for export.

This completes the export overview. You have made your key decisions and are now ready to move to the export file detail specifications which begins on page 48

# Importing COVA Entity Data into eVA

Each COVA Entity must choose one of the following data administration alternatives for each information category.

### **♡** Vendor Information:

Importing orders requires that the COVA Entity and eVA agree on how to identify vendors and the vendor's locations. As new functions are added to eVA, the local systems and eVA may be required to exchange additional vendor and vendor location information.

Vendors have many branch ordering locations. For each branch ordering location the vendor chooses a preferred ordering method. The vendor may choose to receive orders via mail (paper) or electronically (fax or email). In making decisions about where to store eVA vendor branch locations in your local system, you need to consider how your system's users will determine how the vendor wants to receive orders. If the vendor's ordering location requires paper, the COVA Entity is responsible for printing and mailing the order. If the vendor's ordering location is electronic then eVA will transmit the order to the vendor as soon as it is received from the COVA Entity.

# Step 1 Select a Vendor location identifier

**DUNS Number:** The Dun and Bradstreet number is assigned by the Dun and Bradstreet Corporation to identify three key hierarchies of a business entity. The Global DUNs Number identifies the world headquarters for the business entity. The Domestic DUNs Number identifies the US headquarters, and the Branch DUNs Number identifies separate physical locations of the business. eVA will provide the Branch DUNS number for every ordering location assigned to the vendor. The service used to deliver electronic orders to the vendor uses this number as a unique identifier for the electronic ordering location for the vendor. This is the best long-term decision

### AND

Decide where this identifier will be stored. For some COVA Entities adding a new address –an eVA Address associated with existing Vendor records may be the easiest way to manage eVA vendor ordering locations. Some COVA Entities may want to modify their existing vendor address record to store the branch location DUNs number

OR

### Federal Tax ID Plus Five-Digit Postal Code of Ordering Location:

Most local systems store the Federal Tax ID number for each vendor. Combining this number with the ordering location five-digit postal code provides an identifier that is specific enough for finding the correct order location. This decision requires that you select Federal Tax ID as the option in Step 3 below. One concern in selecting this option is the possibility of finding more than one ordering location for the Federal Tax ID and postal code combination. If this occurs, eVA will select the first match that meets the criteria. This is an acceptable transition decision, which should not require a change to the COVA Entity System.

# Step 2: Vendor Data Elements which COVA Entity Local Systems must maintain

**Preferred Ordering Method** (*PREFERRED\_ORDERMETHOD*): For each vendor order location, the method vendors' want used to receive orders. The vendor sets the ordering method preference at the time of registration. The vendor may change it at anytime. If the vendor has chosen not to receive electronic orders, the COVA Entity will send the local system generated purchase order. If the vendor has chosen electronic, the local system will not print and send the order; eVA will deliver the purchase order to the vendor electronically. Preferred Ordering Method must be associated with the vendor's ordering location record. A vendor may have many vendor ordering locations and may choose a different preferred ordering method for each location.

Code Value	Code Description	
URL	Electronic	
Print	Paper	
Override	COVA Entity Printed an order for an	
	electronically enabled vendor	
Exception	COVA Entity is precluded by law or	
	policy from using eVA to send the order	

**Table 2 Preferred Ordering Method Values** 

### AND

**eVA Registered Vendor:** To prevent duplicate orders being sent to the vendor, the COVA Entity needs to inform eVA about the vendor's registration status. If the COVA Entity is processing orders to vendor's that are not registered in eVA, then the COVA Entity will print and send the order. If the vendor has registered in eVA as an electronic vendor the order could be sent a second time. To avoid this problem the COVA Entity sends the local system's most recent status for the vendor via the preferred ordering method code value. eVA will not send an order to a

vendor if the local system sends a preferred order method of PRINT. If this value is sent in error, an email stating the vendor is electronically enabled is sent to the COVA Entity.

eVA Non-registered Vendors: Orders sent via the order import process for non-registered eVA vendors should be sent with a preferred order method of PRINT. These orders will be held until there is a means to load the order into the eVA data warehouse.

#### AND

**Exception Orders:** Two preferred ordering method values have been created to deal with ordering exceptions. COVA Entities need to evaluate if they have orders that should not be processed through eVA. If funding source requirements, law, or policy precludes the COVA Entity from charging the vendor a fee, a value of Exception should be used. In these cases the COVA Entity is responsible for printing and distributing the order. Orders sent with a preferred order method of Exception will be held until there is a means to load the order into the eVA data warehouse.

#### AND

**Override Orders:** COVA Entities should use the electronic distribution system of eVA for all electronically enabled vendors. In cases where the COVA Entity's printed an order to an electronically enabled vendor the value of Override should be used. COVA Entities should establish internal guidelines for the use of Override in their organizations. Orders sent with a preferred order method of Override will be held until there is a means to load the order into the eVA data warehouse.

Vendor information is available for download on the eVA Portal. It is the responsibility of the COVA Entity to monitor changes to this information.

### **Step 3: Prepare for a Unique Vendor Identifier:**

Although not required for the current order import process, COVA Entities should evaluate how they are currently organizing general vendor information. Most local systems use a sequential number to identify vendor information and use the Federal Tax Identifier and/or Vendor Legal Name as an alternate identifier. Many local systems allow multiple vendor records for the same Federal Tax Identifier. This particularly happens with franchise businesses. For purchasing transactions these locations act as independent vendors, but for tax purposes they are viewed as one business unit. Because many systems allow multiple vendor records to use the same Federal Tax Identifier, it is not a good candidate for sharing vendor information across many systems.

Using a sequential number to uniquely identify vendor information works well when dealing with just one local system, but when attempting to share vendor information across many systems all systems would need to use the same sequential number to represent the same vendor information.

eVA uses a sequential number and this number could be maintained in every COVA Entity local systems as an alternate identifier. This is the most direct way to match vendor information sent from eVA. The interface team does not recommend this approach because it could expose COVA Entities to additional work as eVA changes.

Given all of these considerations, the interface team recommends the use of the DUNS number to identify vendor ordering location information and may be used to identify Vendor general information.

**DUNS Number:** The Dun and Bradstreet number is assigned by the Dun and Bradstreet Corporation to identify three key hierarchies of a business entity. The Global DUNs Number identifies the world headquarters for the business entity. The Domestic DUNs Number identifies the US headquarters. In the January 2003 release of eVA, each vendor is identified by a catalog duns number. This number represents the duns number the vendor has choosen to use to submit catalogs. The Branch DUNs Number will continue to be used in eVA to identify separate branch ordering locations.

COVA Entities should maintain the Catalog Duns number to identify general vendor information or configure their vendor file to ensure the Federal Tax ID number uniquely identifies one instance of vendor general information. The January 2003 release of eVA requires that Federal Tax ID to be unique at the Vendor header level. Based on how COVA Entities maintain Vendor to Vendor location relationships, the COVA Entity may determine that Federal Tax ID is an appropriate identifier at the vendor header level. Federal TAX ID may be the same or different at the vendor branch location level.

Vendor information is available for export on the eVA Portal. It is the responsibility of the COVA Entity to monitor changes to this information.

# Mandatory Order Information

The Order Import File Specification at the end of this section fully describes all required and optional fields that must be sent as part of the order import file specification. Most of these fields already appear on COVA Entity purchase orders. This section identifies mandatory fields for all COVA Entities that may not currently appear on your purchase order. All fields, except Client Name and eVA Preparer, may be defaulted based on eVA information about the Requester. See Step 10 for more details.

## **Step 4: Purchase Order Header Information**

**Client Name** (*CLIENTNAME*): A field used to distinguish one agency or public body from another. This field is customarily the Entity Code number combined with the agency acronym. Each COVA Entity has only one Client Name. For some COVA Entities Client Names were assigned at the region, district, or institution level. This field is mandatory and must be provided on all import orders.

A complete set of Client Names are available for export on the Portal.

AND

**eVA Preparer** (*REQPREPARERID*): Every import order must contain a valid eVA Login ID in the eVA Preparer field. This information is sent to the vendor as contact information about the order. Some strategies for maintaining this information in the local system include: establish local system Login Ids to match eVA Login Ids. Associate the eVA system Login Id as part of the local system user profile information. Establish a cross reference table available to the local system's import order file program to do the substitution.

eVA user information is available for export on the eVA Portal. It is the responsibility of the COVA Entity to monitor changes to this information

AND

**Purchase Order Category** (*POCATEGORY*): This COVA required field is a means of categorizing purchase orders by procurement method. COVA Entities must send valid code values as part of the order import interface.

Code Value	Code Description
R01	Routine
E01	Emergency
P01	Proprietary
S01	Sole Source

**Table 3 Purchase Order Category** 

Note: Although a final design decision has not been made, the purchase order category values may be expanded to account for exemption processes such has exempt orders that are process through eVA.

AND

**Fiscal Year** (*FISCALYEAR*): This COVA required field is the fiscal year in which the purchase order was created. The same fiscal year, July – June must be used. For purchase orders that are created in the last month of the fiscal year, COVA Entities may choose to use the next fiscal year.

The table demonstrates the correct year designation for current and future fiscal years.

Code Value	Code Description
2002	July 2001 – June 2002
2003	July 2002 – June 2003
2004	July 2003 – June 2004
2005	July 2004 – June 2005

**Table 4 Fiscal Year Values** 

AND

**Entity Code** (*ENTITYCODE*): The COVA Entity identifier assigned by the Department of Planning and Budget for their entity. For executive, legislative, and judicial branch entities it is the "Agency Number". For public bodies it is the FIPS number. The number used must match the number used in the Entity Code field in eVA found on the eVA requisition header screen.

### **Step 5 Select Commodity Identifier**

A commodity identifier groups similar goods and services. There are two commodity-coding structures used in eVA. NIGP version 11 is used for registering vendors. Vendors in defining their catalog item categories use the UNSPSC Version 4.03. Agencies must choose to send either NIGP version 11 or UNSPSC Version 4.03 codes.

NIGP Version 11 5 Digits level: COVA Entities may choose to use NIGP Version 11 commodity codes. The NIGP codes are used for eVA registration of vendors. For COVA Entities using eVA functions of Quick Quote, Virginia Business Opportunities, and/or eVA Vendor's Bidders List, this code set may be the best choice. Many COVA buyers are familiar with these codes and would adapt to needing to entering the code to describe items. NIGP codes must be licensed.

Licensing details and pricing options are available from the NIGP website <a href="http://www.nigp.com/nigp-order-5digit-02.jsp">http://www.nigp.com/nigp-order-5digit-02.jsp</a> . It is the COVA Entity's responsibility to appropriately license the code.

OR

**UNSPSC Version 4.03 8-Digit Level:** The UNSPSC commodity codes are used to describe items in eVA catalogs. COVA Entities that may be considering loading eVA catalogs directly into their local systems may want to consider using UNSPSC as the local system commodity code.

These codes are also used to drive eVA commodity workflow. There has been a discussion within the eVA project team to attempt to move to one commodity code for all eVA functions. If this occurs in the future, the decision will be to move to NIGP codes. Therefore choosing UNSPSC may require a future data conversion to NIGP codes.

UNSPSC Version 4.03 may be downloaded from <a href="http://159.169.222.51/Supplier/files/unspsc.xls">http://159.169.222.51/Supplier/files/unspsc.xls</a>

### Step 6 Load UN unit of measure codes

**United Nations Unit of Measure:** All COVA Entities must supply a valid United Nations unit of measure. The table of values is available for use by all COVA Entities.

Unit of Measure information is available for export on the eVA Portal. It is the responsibility of the COVA Entity to monitor changes to this information.

## Step 7 eVA Catalogs (Optional)

eVA state buyers are developing electronic catalogs for all state contracts awarded by the Division of Purchases and Supply. These contract catalogs will be provided for download and use within COVA Entity Systems. Many contract vendors use a vendor maintained web site (a punch out site) of all items. Data from these web-sites cannot be made available. A summary catalog (sometimes only one line) will be provided for punchout catalogs. Catalogs change daily. It is the COVA Entities' responsibility to monitor changes to contract catalogs.

Vendor's using catalogs or punchout sites supply commodity line information that is critical to fulfilling COVA Entity orders. Examples of this information include contract number, supplier part number, and manufacturer part number. With the advent of eVA, vendors are automating order fulfillment based on having this detailed information provided on eVA orders. COVA Entities are advised that import orders should contain all information required by the vendor to efficiently process the order. As an order import entity it is your responsibility to load information into the agency's local system to facilitate accurate and efficient order processing.

## Step 8 Managing COVA Entity Shipping and Billing Locations

**Provide eVA Shipping/Billing identifiers:** Every COVA Entity shipping and billing address has been assigned an eVA location identifier. Vendors

associate eVA buyers with vendor customer account information using the eVA Shipping and Billing identifiers. It is the COVA Entities' responsibility to maintain the eVA address identifier for all local system shipping and billing locations within the their system. eVA COVA Entity address information is available on the eVA Portal. It is the responsibility of the COVA Entity to monitor changes to this information

OR

Enter COVA Entity Shipping/Billing identifier in eVA: COVA Entities may elect for eVA to translate local system shipping and billing identifiers to eVA identifiers. If the COVA Entity selects this option, they must update all of their addresses in eVA that will be used in the order import process. The local system identifier should be entered into the *URL* field of the address table.

To arrange training on address administration and for questions on how to update the information contact Marion Lancaster at <a href="mlancaster@dgs.state.va.us">mlancaster@dgs.state.va.us</a>. At this time there is no mass update capability for modifying addresses in eVA.

OR

Use one valid Shipping/Billing Identifier: For COVA Entities with hundreds of addresses, updating eVA addresses with the COVA Entity's location identifier may be impractical in the short term.

For these Entity's they may want to develop a transition strategy. For a limited time period, COVA Entities may use a generic eVA ship-to or eVA bill-to identifier. In this case the address would state see PO comment for shipping and/or billing information.

AMS is scheduled to release, in November 2002, a mass update capability for addresses and associated information. It is expected that COVA Entities using a generic address will update their addresses and begin using valid addresses when the mass update functionality is available. Choosing this option may require the COVA Entity to rework their interface program to support actual address identifiers.

### Step 9 Managing COVA Entity Distribution (Accounting) Data

eVA does not require and would prefer that COVA Entities not import distribution line information. For COVA Entities that have established mandatory distribution (accounting) fields for on-line eVA users, these fields are also required on the COVA Entities' interface files.

**Using One set of Distribution Values**: The COVA Entity may elect to send the same valid account distribution for every order line item.

OR

**Let eVA Default Distribution Values:** If mandatory accounting values are not sent with the order, the default values associated with the group profile for the Requester (*REQREQUESTERID*) will be used.

OR

**Use Valid Distribution Values:** The COVA Entity may elect to send valid distribution values. A valid distribution value is the eVA unique name for the value. The table demonstrates the difference between a COVA Entity accounting value and the unique name.

COVA Field	Unique Name	Local system value	
Fund	0100	0100	
Fund	0200	0200	
eVA Field filtered on Fund			
Cost Center	0100102	102	
Cost Center	0100103	103	
Cost Center	0200205	205	
Cost Center	0200103	103	

**Table 5 Example of Valid Distribution Values** 

COVA Entities that select this option will be provided on-line access to their eVA accounting fields and values. It is the COVA Entities' responsibility to update their eVA accounting values as required and to provide the eVA unique name value on their order import file.

OR

Use Non-meaningful Distribution Values: The COVA Entity may elect to send non-meaningful account distributions for every item. If the COVA Entity selects this option there is a possibility that on-line users may select these non-meaningful values to avoid workflow rules. There are two options to address this problem. The first option traps the incorrect use of codes allowing a COVA Entity user to correct the distribution before final approval, the second option prevents on-line users from selecting the non-meaningful codes.

**AND** 

### **Option 1: Trap Incorrect Use**

Establish a signer rule for the non-meaningful distribution value.

Instruct the signer rule approver to deny or correct the order

OR

### **Option 2: Prevent Selection (May require data changes)**

Working with the COVA Entity account exec or Maria Monteiro Hatcher, <a href="mhatcher@dgs.state.va.us">mhatcher@dgs.state.va.us</a>, The COVA Entity needs to select a requisition header field to be used as the *Non-meaningful Value Filter Field*.

The *Non-meaningful Value Filter Field* will have two values – one value to be associated with valid accounting values "ONL" for online, and one value to be associated with the local system orders "ERP"

The two values "ONL" and "ERP" need to be entered into the *Non-meaningful Filter value Field*.

All COVA Entity mandatory accounting fields will need to have the *non-meaningful Value Filter Field* established as a filter for the mandatory accounting field. Make your request to Maria Monteiro Hatcher at <a href="mailto:mhatcher@dgs.state.va.us">mhatcher@dgs.state.va.us</a>. Maria will coordinate with AMS.

All existing accounting values must have the "ONL" appended to the unique name field. A request may be made to AMS for this work, but if they refuse to do it, all the accounting values must be reentered using online data management.

Enter ERP in the filter and enter the non-meaningful field values in the mandatory distribution fields.

Note: eVA has a mass data import and export facility. All addresses and accounting field value additions, changes, and deletions may be executed via the bulk data management system. Data must be provided in a prescribed format. New users may also be created using this utility. COVA Entities should contact their DPS Account Executives for further information.

# Review Decisions to Reduce Complexity

### **Step 10 Determine Defaults for Mandatory Fields**

The requester (*REQREQUESTERID*) user profile determines the ship-to location and deliver to name, and the group profile to be used for default

order fields, accounting fields, and bill-to locations. If field values are not sent as part of the interface file, these default values will be used. Decisions made about establishing Import Order Specific Generic Requester accounts and associated group profiles can greatly reduce order import complexity.

**Establish an eVA account to be used in the Requestor** (*REQREQUESTER*) **User field.** The COVA Entity submits a request to establish an import requester. The purpose of this new eVA account is to associate a group profile with order import field defaults. See Appendix Security Access Forms beginning of page 46 for an example security request form.

#### **AND**

Using one Group Profile for all Import Orders: COVA Entities may elect to process all interface orders through one eVA Group Profile (BSOID). Using this strategy all import orders from the COVA Entity will be assigned to the same group profile. This choice is easy to implement and support. It provides a method to default mandatory purchase order fields in step 4, the bill to default location in step 5 and mandatory distribution (accounting) fields described in step 9. It will also provide a straightforward data element when needing to report on or exclude import orders from data warehouse reports. This approach requires the COVA Entity to request a new group profile be established. The profile name should be ClientEntity-Order-Import (A194-Order-Import). This group profile will be assigned to the Import Requester account requested above.

If this choice is selected, the COVA Entity should use the *Deliver To* text field (*DELIVERTONAME*) to provide the vendor with a delivery contact name. The PO Header Comment field could also be used to identify the buyer or other helpful information to the vendor.

A generic eVa Requester account should be used when COVA Entities have not already registered COVA Entity requestors in eVA. One benefit to this approach is the Import Requester account can be used to monitor all import orders.

Using only one Group Profile and one Requester for all import orders is not a good choice, if the COVA Entity wants to load requisitions that require different eVA workflow approvals.

OR

Use an Existing eVA User for Requestor Field (REQREQUESTERID): For COVA Entities that have already registered buyers and requestors in eVA sending the eVA user login id in the requester field will provide the most complete information to the vendor. It will also provide the import order with an existing group profile. This is one way to default ship to location based on the eVA user and bill to addresses based on the user's group profile. Also values specific to the Requester (shipping address, deliver to, phone number, etc) and their assigned accounting distribution could be defaulted.

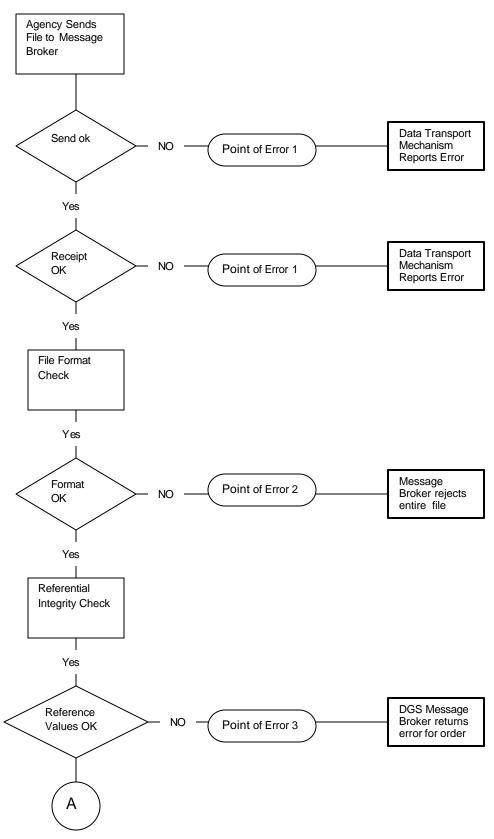
If this option is selected, it is the COVA Entities' responsibility to maintain the eVA login id for all local system users within their system. eVA user information is available for export on the eVA Portal. It is the responsibility of the COVA Entity to monitor changes to this information

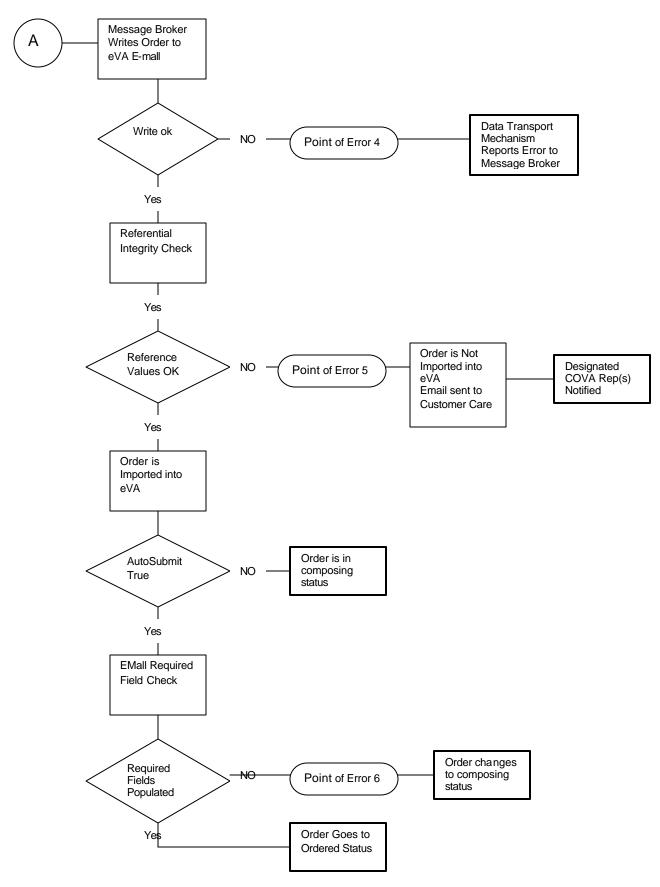
OR

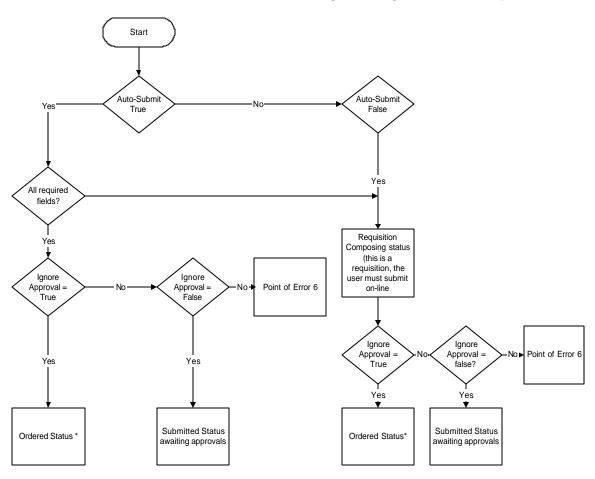
**Combine the two choices** Establish an eVA account to be used in the requester field (*REQREQUESTERID*) User field and assign the new Requester to an existing group profile. A default user should be used when COVA Entities have not already registered COVA Entity requestors in eVA.

If this choice is selected, the COVA Entity should use the *Deliver To* text field (*DELIVERTONAME*) to provide the vendor with a delivery contact name. The PO Header Comment field could also be used to identify the buyer or other helpful information to the vendor. One benefit to this approach is the Requester account can be used to monitor all interface orders.

# Overview of Potential Errors and How They will be Handled







# Detail of Point of Error 6 and Auto Submit Logic During eMall Order Import

\*Or Ordering Status if REQHOLDUNTILDATE is used

This completes the Import Overview. You have made your key import decisions and are now ready to move to Importing COVA Entity Data into eVA detail specifications which begin on page 33.

Two-way Communication between your system and eva (Integration-Future)

# Part III Implementing

# **Exporting COVA Entity Data from eVA**

# **Export Options**

COVA Entities may export the following records from eVA:

Vendor Header
Vendor Location
DPS State Contract Catalogs
COVA Entity Configuration Data
COVA Entity User Profile Data
COVA Entity Orders
COVA Entity Receiving

### **Data Format**

The fields in each record layout are based on the schema for the eVA data warehouse. The file/record layouts for interface files being imported into the eMall and for interface files being exported from the eVA data warehouse are the same. However, some record types are not used by the import interface and some are not used by the export interface.

The export interface will not include Req Header Attachment records and Requisition Line Attachment records. Attachments are not stored in the data warehouse.

The standard date format follows ISO standards which is YYYY-MM-DDTHH:MM:SS.SSS YYYY indicates the four position year (ex. 2002), MM indicates the month (ex. 01 = January, 02 = February, etc.), DD indicates the day (ex. 01, 02, etc.), T is a literal to indicate that time follows, HH is the hour in military time (ex. 13 is 1 PM), MM is minutes (ex. 01, 02, etc.), SS.SSS is seconds and milliseconds (ex. 01.000, 02.000).

See eVA Import/Export Record Specification beginning of page 48 for detailed record layout and field definitions.

### **Frequency**

Orders in Ordered Status and Receiving in Received status entered into eVA are available for download and/or printing the next day.

## **Transport Options**

The order and receiving export files are posted under the COVA Entity Tab on the eVA Portal.

To access this information the user must have a valid eVA user id and be granted access to:

**Application**: Report Analytics

Reporting groups: Technical and COVA Entity Specific Group.

**Data Source:** Advantage, DMReports, and COVA Entity Specific Data Source.

To request additional security complete the form in the Security Appendix and send it to <a href="mailto:evasecurity@dgs.state.va.us">evasecurity@dgs.state.va.us</a>.

File download using web browser and access to eVA Portal Menu Option Reports and Documents

### **Order Export Implementation Checklist**

- ✓ Establish access to eVA Portal for all team participants (Security Access Forms Page 46)
- ✓ Orient team to eVA order on-line process

  Training guides available under the eVA Portal Training
  Tab
- ✓ Print set of COVA Entity Configuration Reports
  Configuration reports are available under the eVA Portal
  Technical Tab
- ✓ Finalize COVA Entity Specific Decisions

  Complete Part II: Exporting COVA Entity Data from eVa beginning on page 9
- ✓ Assess Changes to COVA Entity Processes
- ✓ Adapt COVA Entity policies and procedures to process changes
- ✓ Assess Impact to COVA Entity Local System
- ✓ Design, Code, Test Local System Changes (if any)
- ✓ Populate cross-reference fields with data downloaded from eVA Portal (if required)

## Files are available under the eVA Portal Technical Tab

- ✓ Create Test Plan
  - o Environment for Export File testing
  - o Test Scripts and Results
- ✓ Download production export files
- ✓ Complete Testing
- ✓ Set Implementation Date
- ✓ GO LIVE

# Importing COVA Entity Data into eVA

### **Import Options**

COVA Entities may import the following records into eVA

### **Orders & Requisitions**

All orders to eVA registered vendors should be sent via the order interface. Orders to electronically enabled vendors will be sent electronically (via the Ariba Commerce Services Network) to the vendor. Orders to "paper" only vendors should also be included in the order interface. Remember it is the COVA Entity's responsibility to print and send these orders. If the vendor is not registered in eVA, the order should also be sent via the interface, but the record will not be loaded into eVA.

COVA Entities may include on the import interface file, orders that are made with a purchase card. These orders must meet all data administration standards and have all mandatory data fields. Purchase card orders are sent to the vendor as "confirming" orders. The purchase card number is not included in the order sent by the COVA Entity nor is the purchase card number sent to the vendor. The detail file specifications identify which fields should be used to identify import orders as purchase card orders and where to place the "confirming" order notification.

Requisitions may also be imported. An import record is considered a requisition if it is imported into eVa in a composing status. Records imported in composing status may be edited on-line within the eMall. COVA Entities may want to import requisitions that are generated by their inventory systems, to take advantage of eVA's workflow, to assign a purchase card number to the requisition, or to complete the sourcing of the request using eVA on-line tools. For purposes of the change order process an imported requisition is considered an eVA generated order. COVA Entities importing requisitions are required to have at least one approver within the eVA workflow.

The Import/Export Order Specification provides record layout information giving specifics on how to format records in the import interface file. The import specification defines a method for importing file attachments associated with an order. File attachments are optional because most purchase orders do not have attachments. When an external file (an attachment) is part of the purchase order and is required to be sent to the vendor, the attachment should be sent via the import interface.

### **Change Orders (to Orders Imported into eVA)**

All orders imported after January 6, 2003 may have change orders placed against them. During the design phase COVA and AMS agreed on change order minimum requirements. The requirements that directly affect the Import/Export process are identified below:

Change Orders will originate in the system that created the Order

Requisitions created in the eMall will be changed in the eMall

Requisition created by the Import Orders process in submitted or ordered status will be changed in the originating Agency System

Requisitions created by the Import Orders process in composing status will be changed in the eMall.

eMall Requisitions created to process eProcurement (Advantage) Orders will be changed in eProcurement.

Change Orders will be a complete replacement of the Original Order. All comments, attachments, and accounting must accompany the new order whether changed or not.

Change Order documents no matter the format will be clearly identified to the Vendor as a Change Order

Change Orders may be issued against orders that have begun receiving (are in a receiving status)

Subsequent Change Orders may only be issued once the previous eMall Change Order Requisition is in an ordered status. (Ordered/ Receiving)

Change Orders may not be issued against an order that is fully received or is closed for receiving.

Sending systems are responsible for Change Order Sequence

Order cancellation must originate in the sending system. A cancellation is defined as a change order with all line item quantities set to zero or with a header status of Canceled.

eVA billing must reflect change order values.

Limit the changes required by Agency's already importing orders.

### **Change Order Import Technical Requirements**

The change order is a complete replacement of the original order. The value sent in the REQNUMBER field will always be the value of the original imported purchase order. The change order will become the second version of this original imported purchase order. All commodity lines, comments, attachments, and accounting required to create a complete version of the purchase order must be sent as part of the change order.

Change Orders require maintenance of the originating PO Line number within the eMall. All change order documents must reference the originating line order number or subsequent Change Order line number for items added via a change order. Once sent, the line number is never modified even if items above the line are deleted on a change order.

Change Order numbers will not override the Original Order Number. If this would occur Ariba would treat the Change Order as a new order. The change order notice to the vendor would appear like a new order. eMall must be allowed to assign the PR and DO based on the original PO number.

Change Orders must be submitted and completed sequentially. eMall will always assign next available version number. For the change order issued by the eMall to match the Order version in the sending agency all change orders against the order must be sent to the eMall.

Change Orders cannot be processed for orders sent prior to January 6, 2003.

Change Orders will not be processed if the original order or any previous change order is in an "ordering" or "canceling" status.

If an order must be cancelled – Sending agency will send a Change Order where all quantities are 0 values or an order line has the value "cancel" in the requisition line Status field.

Cancellation Order (to Orders processed via the Order Import and into eMall)

Orders sent after January 6, 2003 via the eVA order interface and successfully imported into the eMall may be cancelled via the import interface. To cancel an order the requisition header (RH record) and at least one requisition line (RL record) must be sent. As with change orders the status field in the requisition header record (RH record) should be the next available version number for the order. This number must be greater than 0. On the requisition line record (RL record) put the value "cancel" in the status field. If any requisition line record for the order has a status value of "cancel" the whole order will be cancelled.

### **Data Format**

The fields in each record layout are based on the schema for the eVA data warehouse. The file/record layouts for interface files being imported into the eMall and for interface files being exported from the eVA data warehouse are the same. However, some record types are not used by the import interface and some are not used by the export interface.

The import interface will not process Receiving Header and Receiving Detail record types. Agencies who are importing transactions from their local systems are not expected to send receiving information to the eMall. They should handle receiving within their local systems or use eVA's online receiving function.

The standard date format follows ISO standards which is YYYY-MM-DDTHH:MM:SS.SSS YYYY indicates the four position year (ex. 2002), MM indicates the month (ex. 01 = January, 02 = February, etc.), DD indicates the day (ex. 01, 02, etc.), T is a literal to indicate that time follows, HH is the hour in military time (ex. 13 is 1 PM), MM is minutes (ex. 01, 02, etc.), SS.SSS is seconds and milliseconds (ex. 01.000, 02.000).

Instructions for the column "Required on Import File?" follow:

**REQUIRED** means this information is required on the XML file that will be created from the import flat file and sent to eVA e-Mall.

**COVA\_REQUIRED** means that this field will not be directly translated into XML and sent to the eMall, but for technical or functional reasons, a value must be provided.

**COVA\_REQUESTED** means that agencies should send this information if possible.

**OPTIONAL** means that the field is not required to be sent to the eMall in the XML, but agencies may choose to send the information. If provided on the import interface file it will be passed to the eMall in the XML. Although information may be considered optional for processing, the COVA Entity must determine their business requirements and the needs of the vendor receiving the order.

**Agency Specific** means that each agency could decide whether to make this field required in the eMall. If the agency made this field required in the eMall and AUTO\_SUBMIT = true, a value for the field is required on the import file or the assigned Requester User Profile and Requester group profile (*BSOID*) must have valid default values for the field.

**NOT USED** means that if a value is provided for the field on the import file, it will not be used for processing the interface.

### Frequency

One or many times per day. The import order process is designed to process multiple daily file submissions from COVA Entities. Each file submission may contain one or many orders. The message broker will begin processing COVA Entity order import files immediately upon receiving. To ensure same day processing, order import files should be uploaded to DGS by 4:00 PM. eVA will process orders from the message broker until 8:00 PM Monday – Sunday, but orders submitted after 4:00 PM are not guaranteed same day delivery to the vendor.

### **Transport Options**

The COVA Entity must provide a location for the Order file and Order attachment files. The choice of storage location is the COVA Entities'. The files must be located on a PC or server that has access to the Internet and can initiate an HTTPS session with the DGS interface servers.

Two options are provided for transmitting the file. DGS has developed a java applet that can be configured and installed at any COVA Entity without charge. JAVA does require that the PC or server have a JAVA virtual machine installed. The applet is designed to be executed from the command line. COVA Entities can choose to execute the applet from a batch job or can be initiated by COVA Entity supplied scheduling software.

The other options allow COVA Entities to upload the file using a web browser session. The web page uses HTTPS to encrypt the transmission. The browser must be configured with 128 bit encryption.

For files to be uploaded to DGS, the COVA Entity must allow outbound HTTPS. If HTTP has not been enabled on the COVA Entity's firewall Port 80 (HTTP) and Port 443 (HTTP over SSL) must be enabled for outbound traffic.



If the COVA Entity has questions about the use of these protocols, contact Marion Lancaster at <a href="mailto:mlancaster@dgs.state.va.us">mlancaster@dgs.state.va.us</a>.

### **Import Decision Tree**

The message broker verifies that the file is received in its entirety, translates COVA Entity values to eVA values, validates specific fields, transforms the record into the XML message format required by eVA and writes valid order records to the eVA order import table. The eVA e-Mall import process then reads the XML message, verifies identifiers are correct, checks that COVA required fields and COVA Entity specific fields are valid, imports the order, and delivers the order to the vendor or places an incomplete order into composing status. Refer to Overview of Potential Errors and How They will be Handled, page 26 for diagram of error processing.

The following steps describe data validation tasks for the DGS message broker and the eVA Order Import Process. COVA Entities are responsible for providing valid values for required fields, if valid values are not transmitted, the order containing incorrect values will be rejected.

### **Step 1 Submit File**

Scenario 1.1 File Successfully Submitted?

Yes-DGS sends receipt email to COVA Entity No-Point of Error 1 COVA Entity identifies error and resubmits file

Scenario 1.2 Receipt Successfully Received?

Yes-Continue

No- Point of Error 1 DGS retries send, rejects file, reports error to Message broker administrator

### **Step 2 Validate File Submission**

Scenario 2.1 Record format can be read

Yes-Continue

No- Point of Error 2: Reject file, Send message to COVA Entity

Scenario 2.2 File Header Count = Req Header count and File Header Total Amount = Req Line total amount

Yes – Continue

No – Point of Error 1: Reject File - Send Message to COVA Entity

Scenario 2.3 All records have valid *RECORDTYPE* 

Yes – Continue

No – Point of Error 1: Reject File - Send Message to COVA Entity

### **Step 3. Route Order**

Scenario 3.1 Record Header *STATUS* is Numeric and Greater than 0

Yes – Treat order as a change order Continue with next step 3 scenario

No – Treat order as a new order continue next step 3 scenario

Scenario 3.2 Record Header *STATUS* is Numeric and Greater than 0 And initial order/last change order is not in Ordered Status

Yes – Skip remaining step 3 scenarios – Write to Error Log

No – Continue next step 3 scenario

Scenario 3.3 Is *PREFERRED\_ORDERMETHOD* URL?

Yes – Skip remaining step 3 scenarios –Go to Step 4

No – Continue next step 3 scenario

Scenario 3.4 Is *PREFERRED ORDERMETHOD* Print?

Yes –Skip remaining step 3 scenarios – Go to Step 4

No – Continue next step 3 scenario

Scenario 3.5 Is *PREFERRED\_ORDERMETHOD* NonRegistered? Or Original Order *PREFERRED\_ORDERMETHOD* NonRegistered

Yes – Route Order to NonRegistered Vendor Processing

No – Continue next step 3 scenario

Scenario 3.6 Is *PREFERRED\_ORDERMETHOD* Override? Or Original Order *PREFERRED\_ORDERMETHOD* Override

Yes – Route Order to Override Vendor Method Processing

No – Continue next step 3 scenario

Scenario 3.7 Is *PREFERRED\_ORDERMETHOD* Exception? Or Original Order *PREFERRED\_ORDERMETHOD* Exception

Yes – Route Order to Exception Order Processing

No – Continue next step 3 scenario

Scenarios 3.8 PREFERRED\_ORDERMETHOD is not valid Or Original Order *PREFERRED ORDERMETHOD* is not valid

Yes – Point of Error 3.0 – Reject Order – Write to Error log

### **Step 4 Validate Submitted Reqheader Reference Values**

Scenario 4.1 Valid eVA value for *CLIENTNAME* field?

Yes – Continue

No – Point of Error 3.0 – Reject Order – Write to Error Log

Scenario 4.2 Valid eVA user for *REQPREPARERID* field?

Yes – Continue

```
No – Point of Error 3.0 – Reject Order – Write to Error Log
Scenario 4.3 Valid eVA user for REQREQUESTERID field?
       Yes-Continue
       No – Point of Error 3.0 – Reject Order – Write to Error Log
Scenario 4.4 Valid FISCALYEAR (2001-2005)?
       Yes – Continue
      No – Point of Error 3.0 – Reject Order – Write to Error Log
Scenario 4.5 Valid eVA POCATEGORY (R01, E01, P01, S01)?
       Yes – Continue
      No – Point of Error 3.0 – Reject Order – Write to Error Log
Scenario 4.6 Valid eVA AGENCYCODE code
       Yes – Continue
      No – Point of Error 3.0 – Reject Order – Write to Error Log
Scenario 4.7 ERPREQNUMBER not NULL?
       Yes – Continue
       No – Point of Error 3.0 – Reject Order – Write to Error Log
Scenario 4.8 REQNUMBER not NULL?
       Yes – Continue
      No – Point of Error 3.0 – Reject Order – Write to Error Log
Scenario 4.9 REQTITLE not Null?
      Yes – Continue
      No – Point of Error 3.0 – Reject Order – Write to Error Log
Scenario 4.10 Valid BILLTOID?
(null or valid eVA value or valid ERPBILLTOID)
Is BILLTOID a Null Value?
      Yes-
             Is ERPBILLTOID Null?
             Yes -
                    Leave BILLTOID Null – eMall will use
                    REOREQUESTERID default Group Profile to
                    determine BILLTOID - Continue
             No-
                    Is ERPBILLTOID a valid value?
                           Yes -
                                  Replace Null BILLTOID
                                  with eVA valid value for BILLTOID
                            No – Point of Error 3.0 – Reject Order –
                                  Write to Error Log
```

No-

Is *BILLTOID* a Valid Value?

Yes-Continue

No – Point of Error 3.0 – Reject Order Write to Error Log

Scenario 4.11 eVA value for *Status* field?

None, alpha, or 0 (zero) treat as new order Numeric Greater than 0 (zero) treat as Change/Cancel

### Step 5 Validate Req Line Record Value for each Req line

Scenario 5.0 Is Req Header Status Numeric and Greater than 0

Yes

Is Req Line Status = "cancel"

Yes – Send cancelled order XML, skip remaining Req Lines

No –

Is Req Line Status = add, change, delete, or null

Yes - Continue processing

No – Point of Error 3.0 – Reject Order – Write to Error Log

No – Continue treat Order as initial Order

Scenario 5.1 Are common Req Header Values and Req Line values equal?

Yes – Continue

No – Replace Reg Line values with Reg Header values – Continue

Scenario 5.2 POLINENUMBER Not Null?

Yes – Continue

No – Point of Error 3.0 – Reject Order – Write to Error Log

### Scenario 5.3 QUANITYTORDERED Not Null?

Yes – Continue

No – Point of Error 3.0 – Reject Order – Write to Error Log

Scenario 5.4 PRICE Not Null?

Yes – Continue

No – Point of Error 3.0 – Reject Order – Write to Error Log

### Scenario 5.6 ERPPONUMBER Not Null?

Yes – Continue

No – Point of Error 3.0 – Reject Order – Write to Error Log

### Scenario 5.7 Valid eVA value for *UNITOFMEASURE*?

Yes – Continue

No – Point of Error 3.0 – Reject Order – Write to Error Log

```
Scenario 5.8 Valid eVA value for SHIPTOID?
(null or valid eVA value or valid ERPSHIPTOID)
      Is SHIPTOID a Null Value?
      Yes-
             Is ERPSHIPTOID Null?
             Yes -
                    Leave SHIPTOID Null – eMall will use
                    REQREQUESTERID default SHIPTOID Continue
             No-
                    Is ERPSHIPTOID a valid value?
                           Yes –
                                  Replace Null SHIPTOID
                                  with eVA valid value for SHIPTOID
                           No – Point of Error 3.0 – Reject Order –
                           Write to Error Log
      No-
      Is SHIPTOID a Valid Value?
             Yes-Continue
             No – Point of Error 3.0 – Reject Order Write to Error Log
Scenario 5.9 Valid eVA UNSPSC 4.03 code value for UNSPSCCODE?
(valid eVA value or valid eVA non-meaningful Values)
      Is UNSPSCCODE an eVA non-meaningful Value?
      Yes-
             Is EVALINETEXT3 Null?
             Yes –
                    Point of Error 3.0 – Reject Order-
                    Write to Error Log
             No-
                    Is EVALINETEXT3 a valid eVA NIGP value?
                           Yes –
                                 Continue
                           No – Point of Error 3.0 – Reject Order –
                           Write to Error Log
      No-
      Is UNSPSCCODE a Valid UNSPSC 4.03 code value?
             Yes-Continue
             No – Point of Error 3.0 – Reject Order Write to Error Log
Scenario 5.10 Valid eVA NIGP Version 11 Code for EVALINETEXT3?
             (null or valid code value)
      Yes – Continue
      No – Set EVALINETEXT3 to "null"
```

### Scenario 5.11 *VENDORLOCDUNSNUMBER* is NULL?

Yes –

Found *VENDORLOCID* using *TIN* and first five digits of the *VENDORLOC\_POSTALCODE?* 

Yes – Write Found value to ReqLine Field VENDORLOCID - Continue

No – Point of Error 3.0 – Reject Order Write to Error log

No – Continue

# Scenario 5.12 Found *VENDORLOCID* using *VENDORLOCDUNSNUMBER*?

Yes –

Write Found value to ReqLine Field *VENDORLOCID* - Continue

No –

Found *VENDORLOCID* using *TIN* and first five digits of the *VENDORLOC\_POSTALCODE*?

Yes – Write Found value to ReqLine Field

VENDORLOCID - Continue

No – Point of Error 3.0 – Reject Order Write to

Error log

### Step 6 Write Order to eVA eMall Order Import Table

Scenario 6.1 – Write Fails

Yes – Point of Error 4 –eVA sends message to DGS No – Continue with Import

### Step 7 eVA eMall Checks for Referential Integrity

Scenario 7.1 Referential Integrity Check Fails

Yes – Point of Error 5 – eVA marks order record with status of error

No – Continue with Import

### Step 8 eVA eMall checks for COVA Entity Required Fields

Scenario 8.1 Order Does not have all required fields

Yes – Point of Error 6 –eVA changes order status to Composing

COVA Entity must correct on-line

No-Order status changed to Ordered

See Overview of Potential Errors and How They will be Handled for details on Point of Error 6 handling.

### **Testing**

COVA Entitites are required to conduct sufficient testing to move a record from their system into the eMall. At a minimum the test should include an order, a change order and a cancelled order. The eVA Interface team encourages a greater level of testing, but does not require it.

The eVA interface team tests the interface import system to ensure all described functionality works correctly. The results of these tests are posted on the eVA Portal Technical Page.

### **Implementation**

Implementing the import interface affects both the technical and business operations. To be prepared the COVA Entity needs to have planned for how they will register their vendors, how the files will be transferred, who will be responsible for verifying the import, how problems will be resolved, and how existing business processes need to be modified. To ensure that both the technical and business staff are ready for implementation, the eVA interface team requires notification by the COVA Entity's eVA team lead that their organization is ready to interface.

The following is a example of the type of information that should be included in the notification:

Our agency, Dept. of XYZ, has developed and tested the interface between our agency system and eVA to our satisfaction. Our interface processing includes original orders, change orders, cancellations, and attachments. We understand the business impact and have put procedures in place to handle the interface processing. We are authorizing DGS to implement this interface for our agency in production as of <enter date>.

This notification should be sent via email to Marion Lancaster mlancaster@dgs.state.va.us

### **Order Import Implementation Checklist**

- ✓ Establish access to eVA Portal for all team participants (Security Access Forms Page 46)
- ✓ Orient team to eVA order on-line process

  Training guides available under the eVA Portal Training
  Tab
- ✓ Print set of COVA Entity Configuration Reports

  Configuration reports are available under the eVA Portal

  Technical Tab

- ✓ Finalize COVA Entity Specific Decisions
- ✓ Assess Changes to COVA Entity Processes
- ✓ Adapt COVA Entity policies and procedures to process changes
- ✓ Assess Impact to COVA Entity Local System
- ✓ Design, Code, Test Local System Changes
- ✓ Populate cross-reference fields with data downloaded from eVA Portal Files are available under the eVA Portal Technical Tab
- ✓ Create Test Import File
- ✓ Submit test file to DGS for Message Broker Testing
  Schedule testing by contacting the DGS Interface
  Coordinator Maria Monteiro Hatcher at
  <a href="mailto:mhatcher@dgs.state.va.us">mhatcher@dgs.state.va.us</a>

or

eVA Technical Project Manager, Marion Lancaster at mlancaster@dgs.state.va.us

- ✓ Validate Message Broker to eVA e-mall testing
- ✓ Submit final test file for end-to-end testing
- ✓ Set Implementation Date
- ✓ Transmit COVA Entity notification from COVA Entity eVA Team Lead that their Entity is ready technically and procedurally to implement the Order Interface.
- ✓ Submit Operation Contact Form to DGS Interface Coordinator
- ✓ GO LIVE

## Part IV Appendix

### **Security Access Forms**

Request Form for eVA User Profile – Technical Staff

Section must be completed for all users				
First Name				
Last Name				
Agency Number and Abbreviation				
E-Mail Address				
Section must be completed for eMall Users				
Supervisor First Name & Last Name – Must be a user on the system				
Buysense Org Name				
Ship to Address – Unique Name or full address for addresses not yet in the eva				
Deliver to name				
Expenditure Limit	\$0.00			
<b>Expenditure Limit Approver</b>				
<b>Delegated Purchase Authority Amt</b>	\$0.00			
Phone Number				
Must be completed for Technical Staff				
Report Group: Technical Group Data access to interface xref files & Interface Documentation		Yes	No	
Report Group: Agency Reports Group Data specific to Agency including PO data		Yes	No	
Data Source: Advantage Vendor Registration Information		Yes	No	
Data Source: Agency specific – access to agency data		Yes	No	
Data Source: DMreports Access to Agency & User Configurations		Yes	No	

## **Request Form for eVA Import Default User Profile**

Section must be completed for all users Import Account			
First Name	Person first name responsible for this account		
Last Name	Person last name responsible for this account		
Agency Number and Abbreviation	Ex. A194DGS		
E-Mail Address	Email for Agency individual/group to monitor import and be informed of problems		
Section must be completed for eMall Users			
Supervisor First Name & Last Name – Must be a user on the system	Lead Interface User or eVA Team Leader		
Buysense Org Name	A_Agency_Import_Default Example A194_Import_Default Or Existing BSO Name		
Ship to Address – Unique Name or full address for addresses not yet in the eva	Default Shipto address or eVa unique ID		
Deliver to name			
Expenditure Limit	\$0.00 Leave at zero		
Expenditure Limit Approver	Leave blank		
<b>Delegated Purchase Authority Amt</b>	\$0.00 Leave at zero		
Phone Number	Contact number for import		
Must be completed for Technical Staff Not required for this id			
Report Group: Technical Group Data access to interface xref files & Interface Documentation	Yes No		
Report Group: Agency Reports Group Data specific to Agency including PO	- I YAS INO		
Data Source: Advantage Vendor Registration Information	Yes No		
Data Source: Agency specific – acces	s to agency data  Yes No		
Data Source: DMreports Access to Agency & User Configurat	ions Yes No		

All import ids will be in the format Imp Agency Acronym for example IMPDGS For agencies with acronyms longer than five positions the login will be truncated to 8

positions. If more than one account is required, they will be sequentially number. Once the account is established the responsible persons name will be placed in the Portal name fields.

Complete the forms and request that your COVA Entity team lead or security officer submit them to evasecurity@dgs.state.va.us.

### **eVA Import/Export Record Specification**

See Import/Export Records –Posted as separate document eVA Portal Technical tab eVA provides two import file formats a flat file format (~ delimited) and an XML format. Both formats are supported by the DGS message broker.

### Fit-Gap Issues and Resolutions - Order Import Workgroup

See Fit-Gap Issues Document – Posted as separate document eVA Portal Technical tab

### **Workgroup Participants & Meeting Minutes**

See – Minutes posted as separate document –eVA Portal Technical tab